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Macroeconomic and External Vulnerabilities

Authorised for distribution by: Thabo Mbeleki
+27 12 313 3614

An event-window assessment of the impact of FATF grey-listing on the South African stock market and financial stability consequences[†]

Eddie Musasiwa and Sihle Nomdebevana

Abstract

This study empirically investigates the impact of the Financial Action Task Force (FATF) grey-listing news on the stock market using an event-study methodology. In particular, our study examines the impact of increased FATF monitoring on equity markets in different countries. Based on our analysis, the announcement of the news did not have a significant impact on the currency, risk premia, and borrowing costs. In both the cross-country and firm-level analysis of systemically important financial institutions (banks) and large insurance firms, we find robust evidence that grey-listing events have a limited impact on stock markets. Our findings confirm that events such as terrorist incidents and sovereign downgrades exhibit higher significant stock market losses, *ex-post*. The study points to significant financial and macroeconomic implications, the longer South Africa stays on the greylist. The interaction of other risks such as geopolitical risks and the consequences of an extended grey-listing, may not bode well for South Africa's country risk profile, market depth and liquidity.

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1 Introduction

Strengthening the monitoring architecture related to anti-money laundering and countering the financing of terrorism (AML/CFT) remains a top priority given the associated economic costs. Many jurisdictions are plagued with money laundering and terrorist financing (ML/TF), raising massive challenges related to safeguarding financial systems from criminal syndicates. On average, the United Nations Office on Drugs and Crime (UNODC, 2019) estimates the amount of money laundered globally to be around 2-5 percent of world GDP or US\$800 billion to US\$2 trillion. Contributing to the myriad challenges to efforts linked to AML/CFT, are advancements in financial innovation (including cryptocurrency), information, and communication technology.

The January 2023 mutual evaluation report (MER) on SA's progress determined that from 67 recommended actions, 8 strategic deficiencies still required attention (National Treasury, 2023). Against that backdrop, South Africa was placed on the list of countries under increased monitoring by the FATF on 24 February 2023. (Jayasekara, 2020) notes significant implications on the financial system of a deficient country, mainly through the risk premium channel resulting in increased transaction costs and borrowing costs¹. This paper thus seeks to determine, empirically, the impact of grey-listing news on the domestic equity market using an event-study approach, similar to studies by Chesney et al. (2011) and Papakyriakou et al. (2019). In this case, the stock market performance acts as a proxy of broader risk sentiment towards domestic financial assets.

The remainder of the paper is structured as follows. Section 2 presents the motivation for this research, reviews similar studies, and develops the hypotheses. Section 3 and 4 describes the data and methodology employed in the study, respectively. The analysis of the results is presented in Section 4. Section 5 discusses the study's recommendations and conclusion.

¹ **Section 2.2** analyses key metrics through which instances for increasing vulnerabilities are observed such as, but not limited to, CDS spreads, borrowing costs and the exchange rate.

2 Study's motivation and hypothesis development

2.1 The impact of surprise events on stock markets

Surprise events such as acts of terrorism, which cause fear and panic may impact stock market returns (see for example, Chesney et al., 2011, Papakyriakou et al., 2019). Since stock prices are driven by investor expectations (see for example, Adam et al., 2017, Gormsen and Koijen, 2020, Zhu and Niu, 2016) and may react to terrorism incidents and company-specific announcements – such as stock splits and mergers – the question that arises is the impact of news of grey-listing on stock prices. In fact, the impact of stock prices on corporate events has attracted considerable attention from scholars while, at least to our knowledge, no study has investigated the impact of a FATF grey-listing event on stock market returns using an event-study methodology.

The main contribution of our work is that it conducts analyses across jurisdictions that have been greylisted by FATF (see **Table 1**). More interestingly, comprehensive assessments of the South African financial system are done particularly on the systemically important financial institutions² (SIFIs) and the large insurers which too, have systemic significance given their size (also see, Kleinow et al., 2014). This disaggregated analysis allows for insights into the sector-specific impact which could be important for a targeted macroprudential policy response.

2.2 Short-term implications of FATF grey listing on asset markets

2.2.1 Credit default swaps

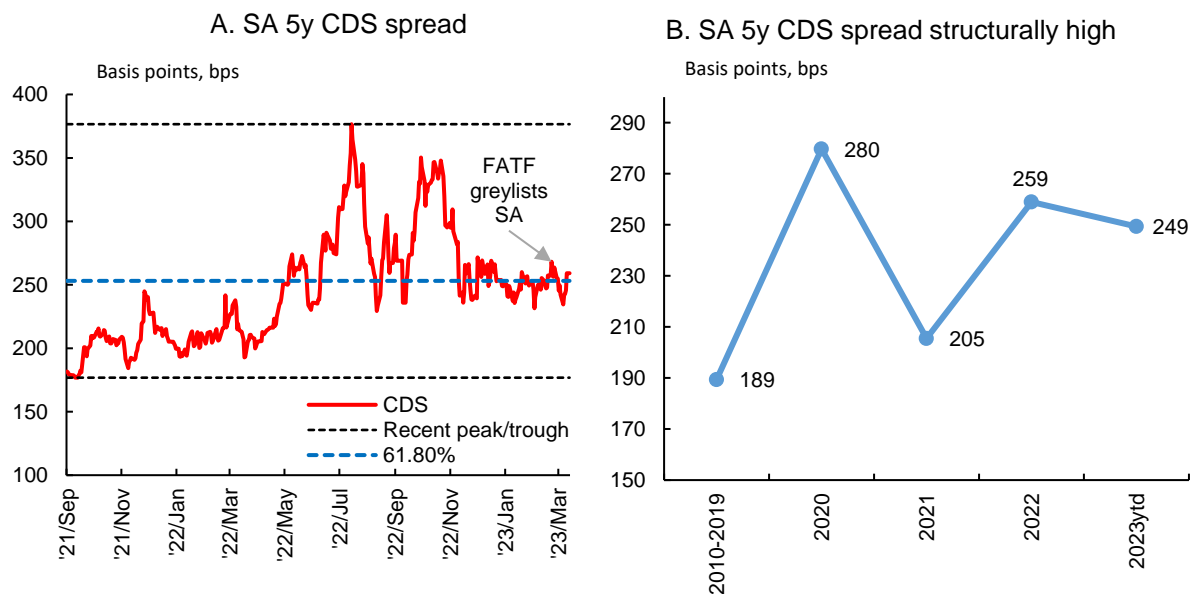
Credit default swap (CDS) spread is a key metric to reflect the impact of the FATF grey listing on sovereign risk and implications on the broader government bond market. Montes and Souza (2020) also establish that the CDS spread is important in assessing the evolution of sovereign risk. Previous work by Camba-Méndez and Serwa (2016) and Fontana and Scheicher (2016) shows that CDS spreads are more precise in gauging market perceptions of sovereign credit risk when compared to sovereign bond yield spreads. **Figure 1 (Panel A)** shows that the trajectory of South Africa's 5-year CDS spread was largely unchanged in the aftermath of the FATF decision. From the recent trough and recent peak of the CDS spread, we calculate

² At the time of conducting the study, only the banks listed in **Table 2** were classified as SIFIs.

retracements and potential market corrections using Fibonacci ratios³. The market has retraced by about 61.8% (the golden ratio) from its peak in July 2022 and has been trading at these levels for over seven months, since early November 2022.

When considering a longer-term horizon, we identify a permanent rise in sovereign risk by comparing the pre-COVID risk level of the 5-year CDS spread between 2010 and 2019 vis-à-vis the 2023 levels (Figure 1, Panel B). Prior to the FATF announcement on South Africa’s grey listing, the CDS spread showed a structural shift from pre-COVID levels in 2022. Since then, it appears that South Africa’s country risk has broadly shifted to higher levels indicating a worsening in the country’s risk premium.

Figure 1: South Africa’s credit default swap spread



Sources: Refinitiv

2.2.2 SA’s borrowing costs

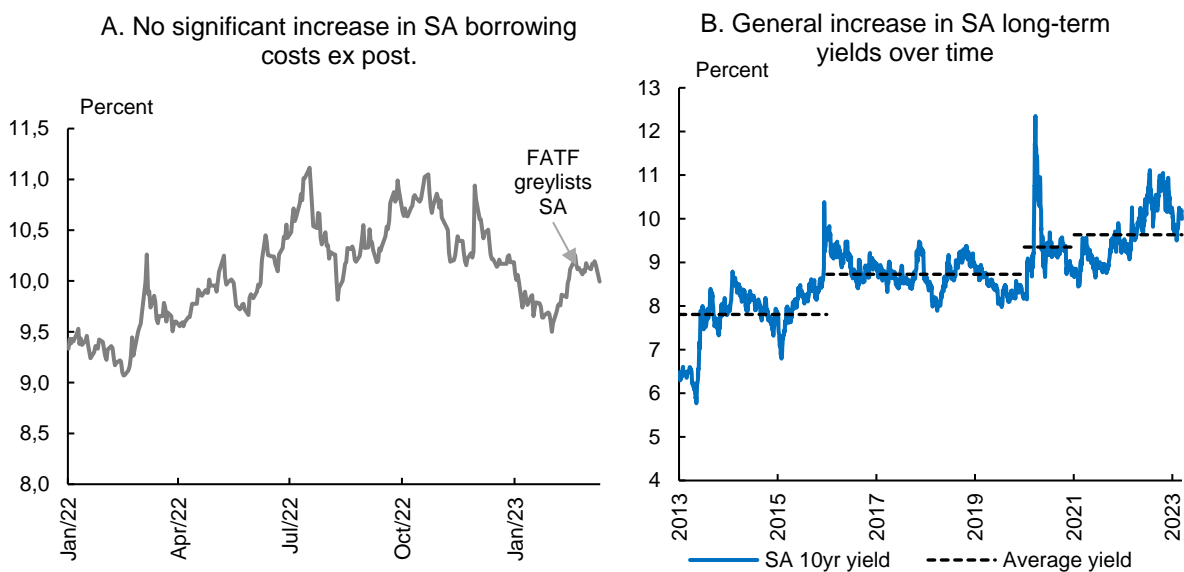
Periods of heightened risk aversion and rising country risk premia are usually associated with rising borrowing costs (Kose et al., 2021). Negative news of a country’s placement on the FATF greylist, terrorist attacks and a sovereign credit downgrade can immediately drive up borrowing costs as investors demand higher compensation for the accompanying risk. This situation, in a challenging macroeconomic backdrop associated with low growth and higher interest rates as

³ Fibonacci retracements are derived from the Fibonacci sequence in which market participants derive trends, support and resistance levels for most financial market securities.

central banks attempt to tame elevated and persistent inflation, could increase the fragility of the financial system.

Figure 2 (Panel A) shows that the 10-year government bond yield, which denotes South Africa's long-term borrowing costs, did not change materially following the FATF announcement. While a slight increase in borrowing costs was recorded ex-ante, it was broadly in line with global market sentiment. **Figure 2 (Panel B)** illustrates that long-term yields have structurally increased. Specifically, between 2013 and 2015 the 10-year yield averaged around 7.8%, before rising to 9.6% between 2021 and 2023. The International Monetary Fund (IMF) identifies some of the determinants of the higher borrowing costs include SA idiosyncratic risks such as state capture, corruption, institutional collapse, unreliable electricity supply, and the deterioration of the rule of law.

Figure 2: South Africa's borrowing costs



Sources: Refinitiv

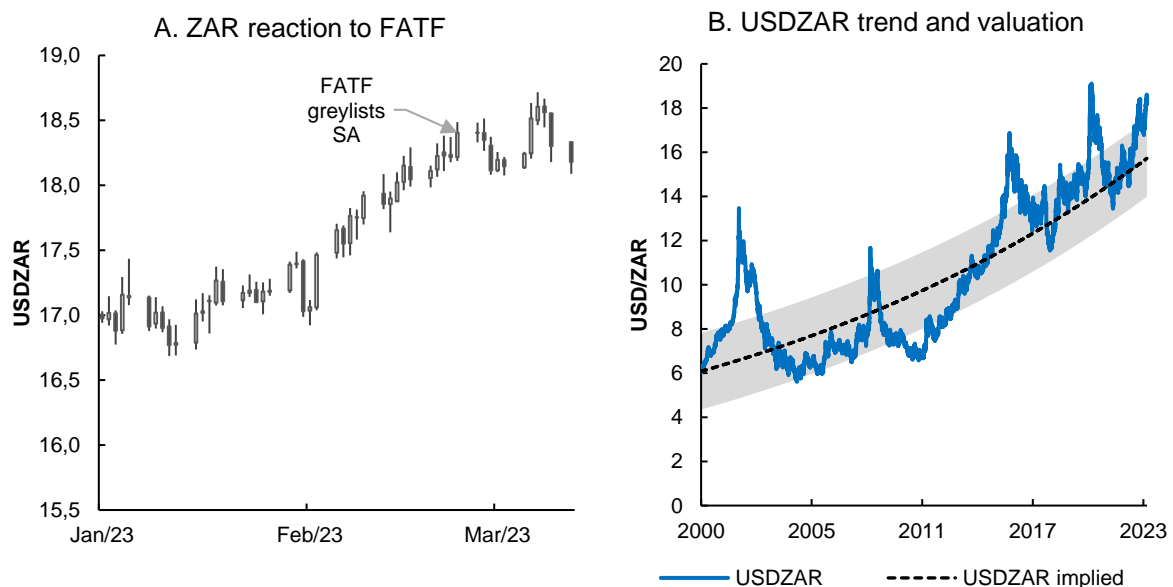
2.2.3 The South African rand (ZAR)

The volatility of the exchange rate is particularly concerning for emerging and developing economies due to its implications on the growth of international trade and inflows of foreign investments on trade and flows (Umoru et al., 2023). Adverse news such as a sovereign credit downgrade and increasing country risk premium, are expected to feed into this volatility resulting in exchange losses, deterring foreign direct investment (FDI) flows. In some extreme cases, such volatility has the

potential to trigger massive capital outflows and cause exchange rate misalignments (Umaru et al., 2018, Umoru et al., 2023).

In the case of the South African rand's exchange rate to the US dollar (ZAR), many analysts believe that most short-term local currency moves are driven by external sources. **Figure 3 (Panel A)** reflects the broad market consensus that the ZAR's reaction to the FATF announcement was muted, trading below its average daily ranges. When detrending⁴ the ZAR in **Figure 3 (Panel B)** to gauge the currency's fair value, we determined that (i) the ZAR was undervalued at the time of the FATF announcement and (ii) the announcement itself, may have limited further ZAR depreciation given that the currency was already undervalued.

Figure 3: The ZAR against the US dollar



Source: Refinitiv

⁴ We detrended the ZAR using the following OLS specification, $\ln(ZAR) = \beta + \sigma(time) + \varepsilon$.

3 Data

The paper employs data from two main sources: (i) events data from the respective MER on jurisdictions under increased monitoring by FATF and; (ii) stock market data provided by Bloomberg.

3.1 Events data from FATF reports

Table 1: Other jurisdictions that are (or have been) on the FATF's greylist

Country	Event date	Stock Market Index
Barbados	21 January 2020	Barbados Stock Exchange Index
Jordan	21 October 2021	Amman Stock Exchange General Index
Nigeria	24 February 2023	NGX All Share Index
Morocco	24 February 2021	Casablanca Stock Exchange Index
Philippines	25 June 2021	Philippines Stock Exchange Index
Turkey	21 October 2021	Borsa Istanbul 100 Index
Tanzania	21 October 2021	Tanzania All Share Index
United Arab Emirates	17 July 2022	Abu Dhabi General Index

3.2 Stock market data

Using the Bloomberg database, we collect daily equity return indices for jurisdictions in **Table 1** with active stock markets from April 2000 to May 2023 during which the placement of respective countries under increased monitoring by FATF occurred. For the cross-country analysis, the world index⁵ return is employed as a proxy for market returns. For the South African analysis, daily JSE All Share index returns and stock returns for banks and insurance firms listed in **Table 2** were collected for the period July 2022 and May 2023.

Table 2: SIFI banks and selected insurance firms in South Africa

Banks	Insurance firms
Absa	Momentum
Capitec	OUTsurance
FirstRand	Discovery
Investec	Clientele
Nedbank	Santam
Standard Bank	

⁵ It was derived from the MSCI World Index.

4 Methodology

4.1 Event-study

We begin by implementing a short-horizon event-study analysis, following an approach by Kothari and Warner (2007). The event study is set up using the Capital Asset Pricing Model (CAPM) with country stock market returns as the dependent variable and the world market returns as the independent variable. We choose the estimation period to cover the interval of (-120, -11) trading days, relative to event day.⁶ Specifically, we estimate the following equation.

$$\begin{aligned} & i = 1, 2, \dots, n \\ R_{itj} &= \alpha_{ij} + \beta_{ij}R_{Wtj} + \varepsilon_{itj} \quad -10 \leq t \leq 10 \\ & j = 1, 2, \dots, n \end{aligned} \quad (1)$$

R_{itj} is the stock market return of country i , on day t relative to the event j . R_{Wtj} is the return of the world index on day t , relative to event j . We also run a model on the South African financial system considering banks and insurers. In this case, R_{itj} is the stock market return of firm i , on day t relative to the event j . R_{Wtj} becomes the return of the JSE All share index on day t , relative to event j .

Once estimated, we use the coefficients from Eq. (1) to calculate abnormal returns (AR) in the event window (-10, +10). We define AR as the difference between actual and expected returns:

$$\begin{aligned} & i = 1, 2, \dots, n \\ AR_{itj} &= R_{itj} - \hat{\alpha}_{ij} + \hat{\beta}_{ij}R_{Wtj} \quad -10 \leq t \leq +10 \\ & j = 1, 2, \dots, m \end{aligned} \quad (2)$$

We obtain the cumulative abnormal return (CAR) over the interval (t_1, t_2) , as follows.

$$\begin{aligned} & i = 1, 2, \dots, n \\ CAR_{ij}[t_1, t_2] &= AR_{i,t_1,j} + \dots + AR_{i,t_2,j} \quad j = 1, 2, \dots, m \\ & -10 \leq t_1 \leq t_2 + 10 \end{aligned} \quad (3)$$

Then we estimate the equally weighted average (across all event-country observations, other than South Africa) cumulative abnormal return (ACAR) over the

⁶ Event day 0 is the actual date of the FATF grey listing if a working day, or the first working day following the actual day of the incident, if not a working day.

same interval, as follows. In the South financial system model, an ACAR is calculated for the banks and insurance firms, respectively.

$$ACAR_{ij}[t_1, t_2] = \frac{1}{n*m} + \dots + AR_{i,t_2,j}(t_1 t_2) \quad -10 \leq t_1 \leq t_2 \leq +10 \quad (4)$$

The next step involves the standardization of abnormal returns in the event window to account for event-induced variance. This method, first proposed by Boehmer et al. (1991), takes AR in the event window (Eq. (2)) and divides them by the time series standard deviation of the residuals (abnormal returns) from the estimation period (-121, -11). The steps we follow to estimate the standardised abnormal returns (SAR hereafter) are described in Eqs. (5)–(7).

$$\overline{AR}_{ij} = \frac{1}{90} \sum_{121}^{-11} AR_{ijt} \quad i = 1, 2, \dots, n \quad j = 1, 2, \dots, m \quad (5)$$

$$\overline{s}_{ij} = \sqrt{\frac{1}{89} \sum_{121}^{-11} (AR_{ijt} - \overline{AR}_{ijt})^2} \quad i = 1, 2, \dots, n \quad j = 1, 2, \dots, m \quad (6)$$

$$SAR_{itj} = \frac{AR_{itj}}{\overline{s}_{ij}} \quad i = 1, 2, \dots, n \quad -10 \leq t \leq +10 \quad j = 1, 2, \dots, m \quad (7)$$

Finally, the test statistic of Boehmer et al. (1991) is given by Eq. (8).

$$T_{BMP} = \sqrt{n * m} \frac{ASAR_t}{s_t} \quad -10 \leq t \leq +10 \quad (8)$$

The formula used to estimate Average Standardized Abnormal Returns (ASAR), the numerator of T_{BMP} , is provided below.

$$ASAR_t = \frac{1}{n*m} \sum_{i=1}^n \sum_{j=1}^m SAR_{itj} \quad -10 \leq t \leq +10 \quad (9)$$

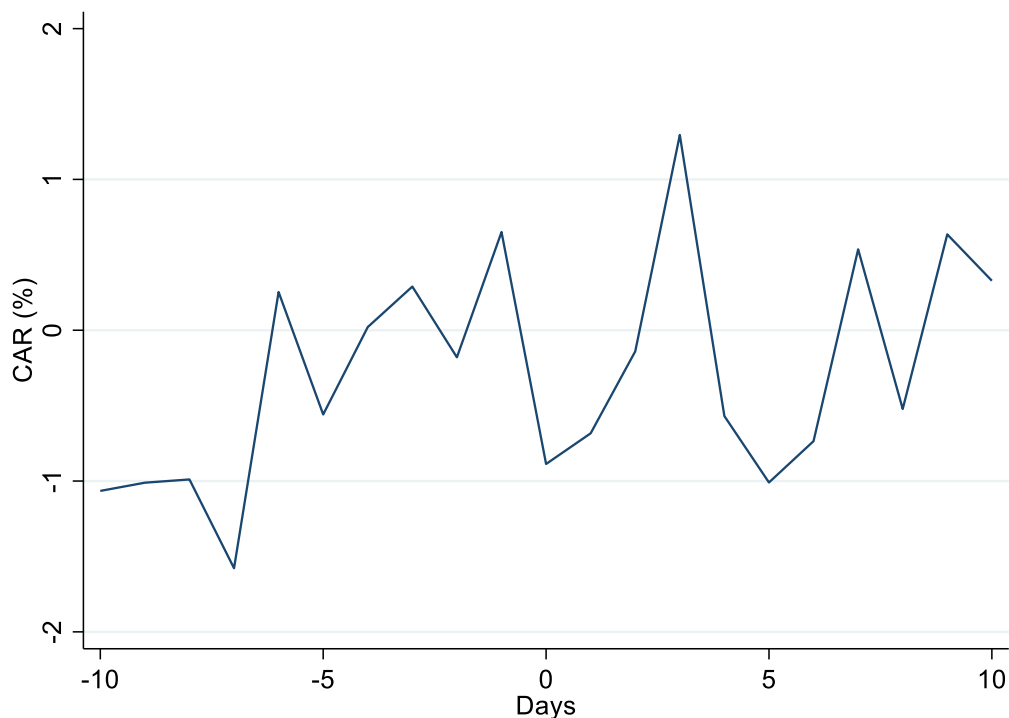
The denominator of T_{BMP} is estimated as follows.

$$s_t = \sqrt{\frac{1}{n*m} \sum_{i=1}^n \sum_{j=1}^m (SAR_{itj} - ASAR_t)^2} \quad -10 \leq t \leq +10 \quad (10)$$

5 Analysis

This section summarises the results from the event study analysis applied to both the cross-country and the country-level data. The results consider the CARs around the event – the grey-listing. We begin by discussing the event-study results across jurisdictions previously or currently under increased monitoring by FATF. The second part of this section shows results when the methodology is applied to South African banks and insurance firms.

Figure 4: South Africa’s CARs around the FATF grey-listing



A graphical representation of the South African stock market’s reaction to news of the grey-listing is shown in **Figure 4**. Some losses are experienced just before the event and after the second day. However, results in **Table 3** indicate that the abnormal returns across the grey-listing event were not significantly important. This suggests that the market could have fully anticipated the event. Interestingly, results of prior related events in the run-up to the eventual grey listing, suggest that some significant reaction was to initial news of South Africa’s deficiencies to the FATF framework in October 2021. These deficiencies coupled with the late cabinet approval for the passing of the AML Bill point to the market having mostly anticipated this event.

Our results show that unlike events related to terrorism which induce fear and panic in investors (see for example, Chesney et al., 2011, Papakyriakou et al., 2019) and events such as the downgrading of South Africa to sub-investment grade, were more impactful to stock market returns (**Table 3**). Several event windows relating to South Africa's downgrade to sub-investment grade are significant. On average, results from other countries that were greylisted by FATF seem to confirm the greater market anticipation largely due to the identified gaps when compared against the country commitments in the run-up to the actual event.

Table 3: ACARs around events in the lead-up to FATF's grey-listing of South Africa

Event date: 24 February 2023

Event window	SA deficiencies identified (07 Oct 2021) ACAR	SA Cabinet approves passing of AML Bill (17 Aug 2022) ACAR	FATF greylists SA (24 Feb 2023) ACAR	Moody's cuts SA to Junk (27 Mar 2020) ACAR
[-10,-1]	2.9136%	0.8542%	0.6514%	-3.7622%
[-5,-1]	-0.1634%	-1.8608%	0.3978%	6.9531%***
[-3,-1]	0.7386%	-1.1583%	0.6304%	0.5513%
[0,+1]	1.0260%	-0.0571%	-1.3348%	-3.4206%**
[0,+3]	2.7891%*	0.6000%	0.6436%	2.1979%
[0,+5]	2.1210%	1.4854%	-1.6609%	4.4072%
[+1,+2]	1.9309%*	-0.5207%	0.7468%	2.1417%
[+1,+3]	1.9861%	0.5938%	2.1819%	4.3569%**
[+1,+5]	1.3180%	1.4792%	-0.1226%	6.5662%
[+2,+5]	1.0950%	1.5425%	-0.3261%	7.8279%***
[+2,+10]	-2.2641%	1.8726%	1.0117%	4.7835%
[+3,+5]	-0.6129%	2.0000%	-0.8694%	4.4246%**
[+3,+10]	-3.9719%*	2.3300%	0.4684%	1.3803%
[+4,+10]	-4.0271%*	1.2155%	-0.9666%	-0.8350%
[-3,+3]	3.5277%	-0.5583%	1.2739%	2.7492%
[-4,+4]	1.5850%	2.6785%	-0.0104%	2.4208%
[-5,+5]	1.9576%	-0.3754%	-1.2632%	11.3603%***
[-10,+10]	1.6755%	2.6697%	0.3283%	-2.3993%

Notes:

The event date is in parentheses.

*** p-value < 0.01, ** p-value < 0.05, * p-value < 0.1.

T-tests and p-values were calculated using the Boehmer et al. (1991) test.

Results in **Table 4** show significant stock market reaction for Turkey, in particular, for several event windows to be significant. Some of which are [0,+1], [0,+3], [0,+5], [+1,+2], [+1,+3], and [+1,+5], with cumulative abnormal returns estimated at 3.13%, 4.57%, 5.04% 2.31%, 3.15% and 3.62%, respectively, suggesting a significant surprise component associated with the grey-listing. Morocco's abnormal returns are

positive and significant only for the [+1,+2] event window, at 3.38%, while the rest indicate that the market reaction is not statistically significant. The results are consistent – showing no material impact - even when we consider the average abnormal returns of greylisted countries in our sample.

Table 4: ACARs of other countries on the FATF greylist

Event window	South Africa (24-Feb-23) ACAR	Nigeria (24-Feb-23) ACAR	Jordan (21-Oct-21) ACAR	Philippines (25-Jun-21) ACAR	Turkey (21-Oct-21) ACAR	UAE (17-Jul-22) ACAR	Morocco (24-Feb-21) ACAR	Non-SA Group average ACAR
[-10,-1]	0.6514%	2.4476%	-3.1321%	1.2568%	0.0830%	-1.3569%	-2.5497%	-0.4744%
[-5,-1]	0.3978%	2.1543%	-3.1332%	-0.5607%	-2.1607%	1.6454%	-0.7077%	-0.4136%
[-3,-1]	0.6304%	2.4364%	-1.2580%	2.8796%	0.4133%	-0.3674%	-1.4874%	0.4673%
[0,+1]	-1.3348%	1.8185%	-0.0596%	-0.3928%	3.1266%**	0.1436%	0.8475%	0.9705%
[0,+3]	0.6436%	2.6904%	-0.4835%	0.3513%	4.5697%**	-1.2931%	-0.0067%	1.0390%
[0,+5]	-1.6609%	0.8544%	-0.4734%	0.8245%	5.0388%**	1.2112%	1.2836%	1.5319%
[+1,+2]	0.7468%	1.2651%	0.1494%	-0.5615%	2.3054%*	-1.6764%	3.3751%**	0.8190%
[+1,+3]	2.1819%	1.0173%	-0.3868%	0.6387%	3.1503%*	-1.2931%	1.3139%	0.7552%
[+1,+5]	-0.1226%	-0.8187%	-0.3766%	1.1120%	3.6194%*	1.2112%	2.6042%	1.2481%
[+2,+5]	-0.3261%	-0.9641%	-0.4137%	1.2173%	1.9122%	1.0676%	0.4362%	0.5614%
[+2,+10]	1.0117%	3.2268%	-2.1225%	6.4035%	3.9638%	-2.4607%	-0.5850%	1.4687%
[+3,+5]	-0.8694%	-2.0838%	-0.5261%	1.6735%	1.3140%	2.8876%	-0.7708%	0.4291%
[+3,+10]	0.4684%	2.1071%	-2.2349%	6.8596%	3.3656%	-0.6407%	-1.7920%	1.3365%
[+4,+10]	-0.9666%	2.3549%	-1.6986%	5.6594%	2.5206%	-1.0240%	0.2692%	1.4002%
[-3,+3]	1.2739%	5.1268%	-1.7415%	3.2309%	4.9831%**	-1.6605%	-1.4941%	1.5063%
[-4,+4]	-0.0104%	5.5983%	-1.4830%	-0.5420%	5.1752%*	0.4872%	0.0911%	1.6670%
[-5,+5]	-1.2632%	3.0087%	-3.6065%	0.2638%	2.8781%	2.8565%	0.5759%	1.1183%
[-10,+10]	0.3283%	7.4928%	-5.3143%	7.2675%	7.1734%*	-3.6740%	-2.2872%	1.9649%

Notes:

The event date is in parentheses.

*** p-value <0.01, ** p-value <0.05, * p-value <0.1.

T-tests and p-values were calculated using the Boehmer et al. (1991) test.

Turning to the results for the South African financial system, **Table 5** establishes a differentiated impact between banks and insurers, with the sub-industry results also showing some interesting nuances. **Figure 5** illustrates graphically the cumulative abnormal returns for the bank and the insurance sectors. The average abnormal returns for both the banks and insurance companies indicate a significant response given both direct and indirect implications on their operations. As per our *a priori* expectations, only Standard Bank within the banking sector, and Discovery and Santam, in the insurance sector had some significant event windows. This may be explained by their extensive correspondence relationships with international institutions, among others. Similar to the findings by Kleinow et al. (2014), the results for other institutions' stock returns indicated that the informational value of the event to market participants was not significant. The graphical representation of the cumulative abnormal returns for banks is shown in **Figure 6**⁸.

⁸ Graphs for the insurance sector are available on request.

Table 5: ACARs of SA banks and insurance firms due to FATF grey-listing

Event date: 24 February 2023

Event window	FirstRand	Standard Bank	Capitec	ABSA	Nedbank	Investec	Bank Average	Discovery	Outsurance	Santam	Momentum	Clientele	Average Insurance
	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR	ACAR
[-10,-1]	5.1511%	4.4899%	2.4244%	1.6565%	3.5415%	0.7868%	3.0495%***	2.8236%	6.2246%	0.0563%	2.4336%	2.6258%	2.8888%***
[-5,-1]	5.6241%	8.7329%**	2.9067%	6.4703%	5.0519%	1.3787%	5.053%***	3.0599%	3.5197%	1.9904%	3.0475%	1.5278%	2.6488%***
[-3,-1]	4.9421%	7.4852%**	1.4253%	3.6561%	3.7292%	-0.2664%	3.5167%***	1.2304%	3.3632%	0.5218%	2.0921%	1.1269%	1.6768%***
[0,+1]	-1.5375%	-0.7224%	-1.6210%	0.1364%	-0.9025%	-0.0838%	-0.7838%***	4.0839%*	1.7461%	1.9025%	-0.6846%	1.6240%	1.7444%**
[0,+3]	-0.5459%	-0.1468%	-1.6393%	1.9315%	-1.0640%	-0.3051%	-0.2869%	2.9950%	-0.6079%	5.6551%*	0.8326%	1.4383%	2.096%*
[0,+5]	-0.0098%	-1.1146%	-2.9089%	0.2602%	-1.2420%	-2.3862%	-1.2152%**	1.3520%	0.4672%	4.9796%	-0.9651%	0.9127%	1.3879%
[+1,+2]	-0.3559%	0.3473%	-1.2634%	0.2741%	-0.8123%	1.3730%	-0.0691%	2.7819%	-0.8893%	2.6038%	1.1595%	-2.8732%	0.5773%
[+1,+3]	0.4299%	0.3420%	-1.9724%	1.3042%	-0.5993%	0.4507%	-0.0012%	1.1653%	-2.3178%	4.0464%	0.5137%	-1.2205%	0.4680%
[+1,+5]	0.9659%	-0.6258%	-3.2420%	-0.3671%	-0.7773%	-1.6304%	-0.9294%*	-0.4778%	-1.2426%	3.3709%	-1.2840%	-1.7461%	-0.2401%
[+2,+5]	1.5277%	-0.3922%	-1.2879%	0.1239%	-0.3395%	-2.3025%	-0.4314%	-2.7319%	-1.2789%	3.0771%	-0.2805%	-0.7114%	-0.3565%
[+2,+10]	4.3218%	-2.1581%	-1.4709%	-3.1871%	-0.8540%	-3.7972%	-1.1519%	-1.9922%	0.7342%	5.8260%	-3.1089%	2.6220%	0.8662%
[+3,+5]	1.3218%	-0.9731%	-1.9786%	-0.6412%	0.0351%	-3.0034%	-0.8603%	-3.2596%	-0.3533%	0.7671%	-2.4435%	1.1271%	-0.8174%
[+3,+10]	4.1159%	-2.7389%	-2.1616%	-3.9521%	-0.4794%	-4.4982%	-1.5808%	-2.5199%	1.6597%	3.5160%	-5.2720%	4.4605%	0.4053%
[+4,+10]	3.3301%	-2.7337%	-1.4526%	-4.9822%	-0.6925%	-3.5759%	-1.6488%	-0.9033%	3.0882%	2.0735%	-4.6261%	2.8078%	0.5146%
[-3,+3]	4.3962%	7.3385%	-0.2140%	5.5876%	2.6652%	-0.5714%	3.2298%**	4.2254%	2.7553%	6.1769%	2.9247%	2.5651%	3.7728%***
[-4,+4]	5.7143%	7.4729%	-0.6515%	4.9647%	1.4912%	-4.4593%	2.4601%	2.3303%	3.7822%	6.0542%	2.0471%	4.1416%	3.7215%***
[-5,+5]	5.6143%	7.6183%	-0.0022%	6.7305%	3.8099%	-1.0075%	3.8378%***	4.4119%	3.9869%	6.9700%	2.0825%	2.4404%	4.0367%***
[-10,+10]	7.9354%	1.6095%	-0.6675%	-1.3943%	1.7850%	-3.0942%	1.1138%	4.9154%	8.7049%	7.7848%	-1.3599%	6.8719%	5.4995%***

Notes:

*** p-value <0.01, ** p-value <0.05, * p-value <0.1

T-tests and p-values were calculated using the Boehmer et al. (1991) test.

Figure 5: Cumulative Abnormal Returns for SA banks and insurers

Event date: 24 February 2023

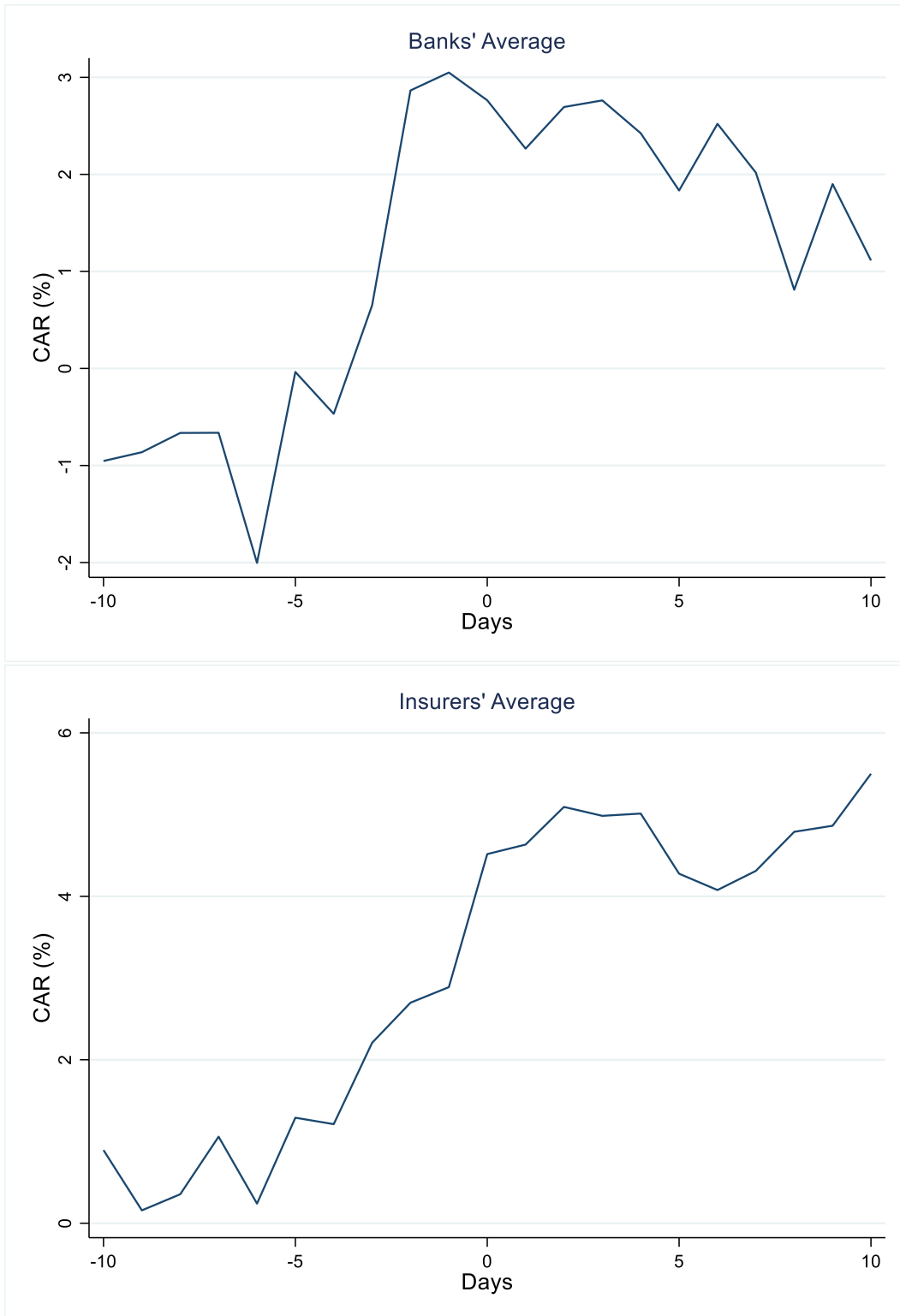
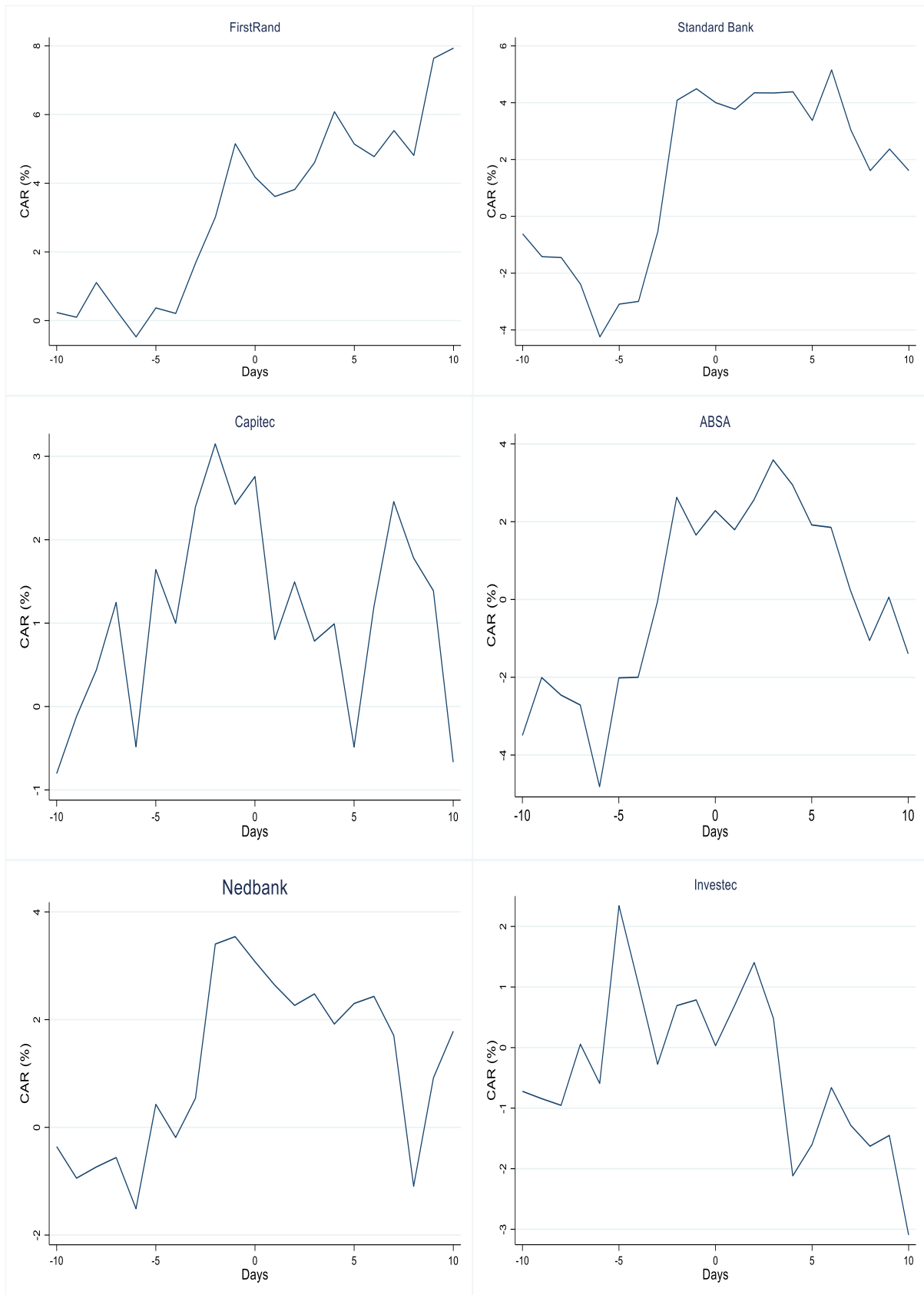


Figure 6: Cumulative Abnormal Returns for SA banks

Event date: 24 February 2023



6 Recommendations and conclusion

While the study did not necessarily control for proximal events, the event study methodology employed demonstrates strong evidence that the FATF grey-listing news, unlike sovereign downgrades and acts of terrorism, did not significantly impact on stock market returns. The initial identification of deficiencies in a country by the FATF framework has more implications on stock market returns. Subsequent events diminish in importance as the market closely follows the progress made to satisfy FATF. The broader reaction of other financial asset prices also seems to support this view. A major limitation of such studies, which could impair their validity is the proximity of estimation windows periods of extraordinary economic, political and geopolitical uncertainty, more so, in the firm-level analysis for South Africa.

While the results of individual financial institutions show to a large extent that the FATF outcome was largely anticipated, certain financial stability implications are triggered. The average abnormal returns for banks and insurers suggest their systemic importance to the domestic financial system. Within these subsectors, the dominance of certain institutions is also evident with important implications for macroprudential policy and the broader macroeconomy. A prospect for future studies is assessing the financial stability concerns that could arise from advancements in financial innovation (including cryptocurrency), information, and communication technology which further complicates the enhancement of the integrity of the financial system.

More importantly, the government needs to urgently address the areas of strategic deficiency to mainly address legal architecture relating to AML/CFT to improve the integrity of the financial system. Failure to resolve these may result in South Africa staying on the greylist for longer, which could have adverse implications on the country's risk premium, market depth and liquidity mainly due to capital outflows from non-resident investors. Furthermore, geopolitical events interacting with this risk could have important macroeconomic and financial stability implications through trade and the financial (banking and insurance) channels, respectively.

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